THE GENERIC AND SUBGENERIC TYPES OF THE LYTTIDÆ (MELOIDÆ S. CANTHARIDÆ AUCIT.), (COL)

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It is not the writer's intention in proposing generic types for the blister beetles to engage in a general discussion of the laws of zoological nomenclature, but a brief outline of the principles which have been followed is not out of place.

Types have been justly called the "anchors" of genera. In order to avoid unnecessary changes in nomenclature and to obviate irritating doubt as to the limits of groups, it is necessary that types for existing zoological genera be fixed as rapidly as possible, and that authors of new genera should clearly designate type species of the same. It is to be hoped that systematic workers in special groups will speedily publish the types of all the genera familiar to them.

In my study of the genera of the Coleopterous family Lyttidæ, I have been able, by applying the rules laid down in the International Code,¹ to name type species for many of the genera and subgenera thus far proposed. For various reasons I decline at present to name types for several genera, but subsequent study may render this possible.

Regarding the spelling of generic names, I should perhaps say that I do not at present admit the duty or privilege of a succeeding writer to "correct" the orthography or etymology of the author of a genus. I also regard misprints as having a nomenclatorial status, and believe that they should be listed as synonyms.

In designating generic types, it is necessary to include discarded genera and those existing only in synonymy, as well as those adopted by zoologists, because a species once used as a type cannot subsequently be made to serve for a different genus.

In the earlier literature especially, it is extremely difficult always to determine whether an author intends to indicate a type species or not, but it is important to endeavour to decide this before naming the type, because a type once properly designated in the literature cannot be subsequently changed. It, of course, follows from this that if a type be selected for a genus which has previously had its type species properly named (either by the proposer of the genus or by a subsequent author), the last designation, unless it coincide with the orginal and valid one, is not to be regarded. I

^{1.} The International Code of Zoological Nomenclature, 1905.

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hope I have escaped such solecisms, but it is very hard to be entirely certain in a few instances, and I shall be grateful to any one who will point out such instances in my work.

The following quotations from Stiles and Hassall's interpretation of the International Code of Zoological Nomenclature² contain the axioms by which I have been principally guided in proposing types for the genera of Lyttide :

1 I regard "the practice of failing to designate the type species (of genera) as one of the most fruitful sources of confusion in systematic literature." (Page 10.)

2. "Types should be determined for all generic names as soon as possible, since a generic name without a definitely-established type is always an element of danger in both systematic and bibliographic zoology." (Page 11.)

3. "The adoption of a rule by the International Commission on Zoological Nomenclature, to the effect that no new generic name may demand recognition unless the author definitely fixes the type at its original publication is worthy of serious consideration." (Preface by Salmon.)

4. "When, in the original publication of a genus, one of the species is definitely designated as type, this species should be accepted (by the later author who is selecting types) as type, regardless of any other considerations." (Page 30.)

5. "If a genus, without designated type, contains among its original species one possessing the generic name as its specific or subspecific name, either as a valid name or synonym, that species or subspecies becomes *ipse facto* type of the genus." (Page 32.)

6. "If an author, in publishing a genus with more than one valid species, fails to designate or to indicate its type, any subsequent author may select the type, and such designation is not subject to change." (Page 52)

7. "A genus proposed with a single original species takes that species as type." (Page 25.)

8. In selecting types not subject to the foregoing rules the following principles have been followed :

2. The Determination of Generic Types, Washington, 1905.

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(a). "In case of Linnæan genera, select as type the most common or the medicinal species." (Page 56.)³

(b). "If the genus contains both exotic and nonexotic species from the standpoint of the original author, the type should be selected from the nonexotic species, unless such procedure is contraindicated by the original author's intentions." (Page 58.)

(c). "All other things being equal, page precedence should obtain in selecting a type." (Page 56.)

(d). "Show preference to the best described, best figured, best known, most easily obtainable species, or of which a type specimen can be obtained." (Page 56.)

9. I hold "for the adoption of the original published orthography (of generic names), be it good, bad or indifferent (and agree), in proposing that all names incorrectly written should be construed under Article 8k, of the International Code, as 'arbitrary combinations of letters.'" (Page 76.)

10. It seems to me a just ruling that published misprints, etc., should be accorded a definite nomenclatorial status, "and are therefore subject to citation, and should be listed." (Page 78.)

Following is a list of the genera and subgenera of the blister beetles so far as I have been able to select their type species in harmony with the foregoing principles. In the first group I include the genera, unfortunately few, of which the type is unequivocally fixed by original designation (either direct or implied) by the author of the genus. (Rule 4, supra.)

Alosimus Mulsant, 1857, type species *syriacus* Linné, 1758. In the original description of his genus the author mentions by name only one species as coming under it, namely, *syriacus* L., which therefore must be considered as the type of the genus.

Cerocoma Geoffroy, 1762, type species schæfferi Linné, 1758. Geoffroy definitely refers to the page and number of Linné's species.

Cysteodemus LeConte, 1851, type species *armatus* LeConte, 1851, virtually designated by author of genus.

Gynæcomeloë Wellman, 1910, type species opacus G. H. Horn, 1867, formally designated by author of genus.

^{3.} Si genus receptum, secundum jus naturæ et artis, in plura dirima debet, tum nomen antea commune manebit vulgatissimæ et officinali plantæ." Philosophia Botanica, 1751, p. 197. This Linnæan rule for botanical names has, by common consent, been recognized as valid in zoology also. (Cf. page 12.)

Iselma: Haag Rutenberg, 1879, type species *ursus* Thunberg, 1791, virtually designated, as the species is named by the author in the title of the description of his genus.

Megetra LeConte. 1859, type species cancellata Brandt et Erichson, 1832, practically designated by author of genus, as he considered the only other species (vittata) as possibly only a variety of cancellata.

Micromerus Mulsant et Rey, 1858, type species collaris Fabricius, 1787, virtually designated by authors of genus.

Heuropasta Wellman, 1909, type species *mirabilis* G. H. Horn, 1870, formally designated by author of genus.

Sagitta Escherich. 1894, type species angusticallis Haag-Rutenberg, 1880, virtually designated in original description as type of genus.

Tricraniodes Wellman, 1910, type species stansburil Haldeman, 1852, formally designated by author of genus.

In the second group, according to the principle of type by tautonomy (Rule 5 *supra*), we may designate :

Proscarabæus Leach, 1832, type species proscarabæus Linné, 1758.

Under the next group are listed those cases falling under rule 6 (*Vide* supra). It is a relief in more or less doubtful cases to find types designated by a writer subsequent to the original author of a genus. In the present family we find some such instances as :

Cabalia Mulsant et Rey, 1858, type species segetum Fabricius, 1792 (cf. Escherich Verb. k. k. zool.-bot. Gesell., Wien, 1894, p. 45).

Cissites Latreille, 1807, type species maculata Swederns, 1787. (Cf. Gahan, Ann. Mag. Nat. Hist., 1908, p. 199 f.)

Enzonitis Semenow, 1893, type species sexmaculata Olivier, 1791 (cf. Escherich Verh. naturf. Verh. Brunn., 1897, p. 103).

Horia Fabricius, 1787, type species testacea Fabricius, 1787. (Cf. Gahan, l. c.)

Lagorina Mulsant et Rey, 1858, type species sericea Waltl., 1835 (cf. Escherich, I. c., p. 20).

Lydus Megerle, 1829, type species algiricus Linné, 1758 (cf. Escherich Deutsch, Ent. Zeit., 1896, p. 193).

Lytta Fabricius, 1775, type vesicatoria Linné, 1758. The Linnæan rule (Sa supra) would have fixed the type of this genus could the Linnæan name Cantharis have been retained. Still vesicatoria has by several authors (v. Escherich, Ver. k. k. zool-bot, Gesell., 1894, p. 19) been designited as the type of the genus Lytta F.

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Œnas Latreille, 1802, type species *afer* Linné, 1767 (c.f. Guérin-Méneville, Dict. pitt. d'Hist. nat., v. 6, I, 1833, p. 224).

Sitaris Latreille, 1802, type species humeralis Fabricius, 1775 (= muralis Forster, 1771), (cf. Guérin-Méneville, Dict. pitt. d'Hist. nat., v. 9, I, 1833, p. 69).

Tričrania LeConte, 1860, type species *sanguinipennis* Say, 1823 (cf. Wellman, Ent. News, XXI, 1910, p. 219).

Zonitis Fabricius, 1775. type species præusta Fabricius, 1792 (= flava Fabricius, 1775), (cf. Guérin-Ménville, Dict. pitt. d'Hist. nat., v. 9, II, 1833, p. 593, vid also Escherich, Verh. Naturf. Ver. Brünn, 1897, p. 104).

A considerable number of monotypical genera (Rule 7 supra) are to be recorded as follows:

Anisarthrocera Semenow, 1895, type species batesi Marseul, 1872. Apalus Fabricius, 1775, type species bimaculatus Linné, 1746.

Apterospasta LeConte, 1866, type species segmenta, Say, 1823.

Caloenas Reitter, 1889, type pulcher Reitter, 1889.

Calospasta LeConte, 1866, type species elegans LeConte, 1851.

Calydus Reitter, 1896, type species pulcher Reitter, 1889.

Causima Lacordaire, 1859, type species vidua Klug, 1825.

Cochliophorus Escherich, 1891, type species reitteri Escherich, 1891. Ctenopus Fischer de Waldheim, 1824, type species melanogaster Fischer de Waldheim, 1824.

Cordylospasta G. H. Horn, 1875, type species fulleri G. H. Horn, 1875.

Corioligiton Marseul, 1879, type hilaris Mars., 1879.

Deratus Motschulsky, 1872, type tibialis Motschulsky, 1872.

Deridea Westwood, 1875, type species curculionides Westwood, 1875.

Diaphorocera L. von Heyden, 1863, type species Hemprichi L. von Heyden, 1863.

Eletica Lacordaire, 1859, type species rufa Fabricius, 1801.

Eupompha LeConte, 1858, type species fissiceps LeConte, 1858.

Goëtymes Pascoe, 1863, type species flavicornis Pascoe, 1863.

Gnathium Kirby, 1818, type species francilloni Kirby, 1818.

Gnathospasta G. H. Horn, 1875, type species mimetica G. H. Horn, 1875.

Gynapteryx Fairmaire et Germain, 1863, type species *flavocinctus* Fairmaire et Germain, 1863.

Henous Haldeman, 1852, type species confertus Say, 1823. Hoplozonitis Blackburn, 1872, type species mira Blackburn, 1872. Hornia Riley, 1877, type species minutipennis Riley, 1877. Iodema Pascoe, 1860, type species clarki Pascoe, 1860. Leonia E. Duges, 1889, type species rileyi E. Duges, 1889. Leptopalpus Guérin-Méneville, 1829, type species rostratus Fabricius,

1775

Lydoceras Marseul, 1870, type species fasciata Fabricius, 1775.

Lydomorphus Fairmaire, 1882, type species cinnamomeus Fairmaire, 1882.

Lydulus Semenow, 1893, type species alboptlosus Semenow, 1893. Lyttonyx Marseul, 1876, type species bilateralis Marseul, 1876.

Melectyphlus C. O. Waterhouse, 1872, type species fuscatus, C. O. Waterhouse, 1872.

Memesthes Marseul, 1872, type species maculicollis Marseul, 1872. Nevalus Casey, 1801, type species marmoratus Casey, 1801.

Nomaspis LeConte, 1866, type pareula Haldeman, 1852.

Onyctenus Serville, 1825, type species sonnerati Serville, 1825.

Palæstra Castelnau, 1840, type species rubripennis Castelnau, 1840.

Palastrida White, 1846, type species bicolor White, 1846.

Paroenas Kolhe, 1894. type species limbata Kolhe, 1894.

Pienoseus Solier, 1851, type species flavipennis Guérin Menéville, 1844

Phodaga LeConte, 1858, type species alticeps LeConte, 1858.

Pleuropompha LeConte, 1867, type species costata LeConte, 1867. Porcospasta G. H. Horn, 1867, type species polita G. H. Horn, 1867. Pseudabris Fairmaire, 1894, type species tigriodera Fairmaire, 1894. Rampholyssa Kraatz, 1863, type species steveni Fischer von Waldbeim, 1824.

Sitarida White, 1846, type species hopei White, 1846.

Sitarobrachys Reitter, 1883, type species brewpennis, 1883.

Sitaromorpha Dokhtouroff, 1890, type species aei/kinsi Dokhtouroff, 1890.

Stenodera Escholtz, 1818, type species sexmaculata Fabricius, 1794 (*caucastea* Pallas, 1781).

Stenoria Mulsant et Rey, 1857, type species apicalis Latreille, 1804. Sybaris Stephens 1832, type species immunis Stephens, 1832. Tegrodera LeConte, 1851, type species erosa LeConte, 1851.

Tetraonyx Latreille, 1833, type species octomaculatus Latreille, 1833. Tmesidera Westwood, 1841, type species rufipennis Westwood, 1841. Treiodous E. Duges, 1889, type species cordilleræ Chevrolat, 1843 (= lævis Leach, 1815), 1829.

Zonitoides Fairmaire, 1883, type species megalops Fairmaire, 1883.

This name is a homonym of *Zonitoides* Lehm., 1862, a valid genus of Mollusca, and therefore must be changed. I propose the following in its stead:

Zonitopsis Wellm., 1810, nom. nov.

The only Linnæan genus may be fixed according to the Linnæan maxim (Rule 8a *suprà*), as follows :

Meloë Linné, 1758, type species majalis Linné, 1758. This is fortunate, as the only other Linnæan species of true Meloë was subsequently used by Leach as the type of his genus Proscarabæus. The winged insects listed by Linné under the 1758 description of the genus Meloë have also, with one exotic exception (Mylabris) cichorii, since been used as types of the genera Lytta, Alosimus, Lydus, Cerocoma and Mylabris. Consequently, according to Stiles and Hassall's interpretation of the International code (page $58,^4$ cf., also Rules 8a and 8b supra), there is happily no doubt whatever regarding the type species of the genus Meloë Linné, 1758.

The remaining genera may have their types chosen or tentatively indicated mostly under rules 8b, 8c and 8d (suprà). Where I prefix a mark of interrogation the citation should be interpreted as only meaning that the species named is, according to my present knowledge, probably the one which should be taken as type. Thus, such genera remain for any author to select their types subsequently. I quote in this connection from Stiles and Hassall,⁵ who say under similar circumstances : "The action on these cases in the present paper is not to be interpreted as designation of type, but simply as an indication of the species which, other things being equal, it seems best (so far as data are accessible at the present moment) to select." The few genera not discussed in this paper will be made the subject of a subsequent note.

^{4. &}quot;Any species of a genus which has been selected to serve as type for a later genus is excluded from consideration in selecting the type of the earlier genus."

^{5.} Op. cit., p. 11.

Actenadia Castelnau, 1840, type species? decimguttata Billberg, 1813 (= guttata Castelnau, 1840).

Apalus Fabricius, 1775, type species bimaculatus Fabricius, 1761. Ceroctis Marseul, 1872, type species servicornis Gerstacker, 1854. Coryna Billberg, 1813, type species ? hermannia: Fabricius, 1775. Criolis Mulsant, 1858, type species ? guerini Mulsant, 1858.

Decatoma Castelman, 1840, type species ? lunata Pallas, 1781.

Epicauta L. Redtenbacher, 1845, type species? erythrocephala Pallas, 1771.

Glasunovia Semenow, 1895, type species caspica Semenow, 1895 Isopentra Mulsant, 1858, type species ? megalocephala Gebler, 1817. Macrobasis LeConte, 1862, type species albida Say, 1828.

Mylabris Fabricius 1775, type species ? floraiis Pallas, 1781.

Nemognatha Illiger, 1807, type species chrysomelina Fabricius, 1775. Prionotus Kollar et Redtenbacher, 1842, type species præustus Kollar et Redtenbacher, 1842.

Pseudomeloc Fairmaire et Germain, 1863, type species ? anthracinus Fairmaire et Germain, 1863 (= parvus Gay, 1851).

Spastica Lacordaire, 1859, type species flavicollis Chevrolat, 1838.

Teratolytta Semenow, 1894, type species dives Brullé, 1832.

Treiodous E. Duges, 1870, type ? barranci E. Duges, 1870 (= laris Leach, 1815).

Zonitides Abeille de Perrin, 1880, type ? oculifera Abeille, 1880.

In conclusion, it may be said that there has been no need to mention pure nomenclatorial synonyms in the foregoing paper, as a *nomen norum* for a genus of course carries with it the name of the type of the genus for which the new name is proposed. It will also be noticed that the genera proposed in Dejean's Catalogues have been ignored except when such may be fairly attributed to a later author. In my forthcoming catalogue of the species of this family I am likewise dropping all citations of the works mentioned, as these names were not accompanied by descriptions. I cannot accord such a name any other status than that of a *nomen nudum*. While there is no objection to mentioning a published *nomen nudum* or a name *in literis* in connection with a description for the convenience of collectors in comparing their material similarly named, yet the conservation of these names in nomenclature serves only to perpetuate confusion.

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